

2009 Nagoya University Students' Guide for Earthquake Disaster Preparedness

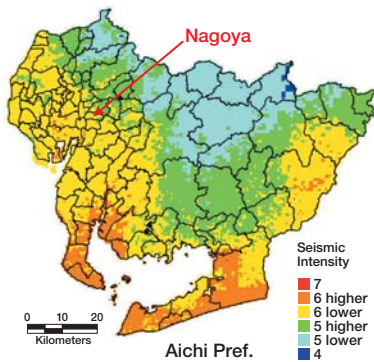
What is an earthquake?

Earthquakes are a phenomenon in which the ground shakes violently for up to several minutes. During severe earthquakes, houses and buildings may collapse. Earthquakes occur frequently in Japan.

Although earthquakes of Intensity 3 (Japanese Scale) or below occur several times a year in Nagoya, there is no need to worry about such small earthquakes. This guide explains the precautions to be taken for a major earthquake of Intensity 5 or more. Such earthquakes occur approximately once every 100 years.



Are large earthquakes predicted for this region?



Tokai Earthquake

The Tokai Earthquake is predicted to occur in the western part of Shizuoka Prefecture. The National Earthquake Prediction Program was established in 1978 to prepare for this earthquake. This earthquake will result in strong tremors throughout Aichi Prefecture.

Tonankai Earthquake

An earthquake of disastrous proportions occurs off the southern shore of Aichi and Mie Prefectures approximately once a century. The Tonankai earthquake last occurred more than 60 years ago, in 1944. The probability of a recurrence over the next three decades is estimated to be 60 percent. The Tokai and Tonankai earthquakes may occur simultaneously, as with the Ansei Tokai Earthquake in 1854.

The above figure shows the predicted Seismic Intensity (Japanese scale) of the next large earthquake (Tokai & Tonankai earthquakes)

Orange : Seismic Intensity of 6 higher. Impossible to keep standing or move without crawling.

Yellow : Seismic Intensity of 6 lower. Difficult to keep standing. Most heavy and unfixed furniture will shift or topple over.

What could happen during and after severe shaking?

Houses may collapse

Older and weaker houses might collapse during strong tremors. It is advisable to live in houses that are recently built or have been reinforced.

Furniture and other items may fall over

Many people might be injured or killed by falling furniture and household items as well as flying glass fragments. Take measures to prevent furniture and elevated furnishings from toppling over or falling down.



Outbreak of fires

Fire is a major hazard associated with earthquakes. Extinguish any open flames immediately and switch off the circuit breaker in your house before evacuating after an earthquake is over.

Tsunami (seismic sea waves)

Tsunami can be an extremely destructive hazard for coastal areas. Tsunamis originate when ocean water is displaced vertically during a large earthquake. If you are close to the coastline and feel a strong earthquake or a weak but prolonged tremor, you must move to higher ground as quickly as possible.

● Before and During an Earthquake Disaster ●

When a large earthquake occurs

The first 3 seconds

Stay calm, protect yourself from falling objects, extinguish any flames (if possible) and open a door to provide a safe exit. Blindly rushing outside may result in unnecessary injury.

2–3 minutes

After the tremors subside, evacuate from dangerous places. Turn off any heaters and stoves, stop any experiments in your laboratory, and check the safety of family members and others around you. When evacuating, be calm, watch for dangerous objects, and do not use elevators. If in class, follow the instructions of your teacher.

5–10 minutes

Once evacuated to a safe place, obtain information to prevent any further danger.

1 hour

Assist in putting out fires and rescue people if necessary, after first ensuring your own safety. Be prepared for aftershocks.

1 day

Report your situation to your school/ university/ laboratory. You must find out how to make contact in case of an emergency.

1 week

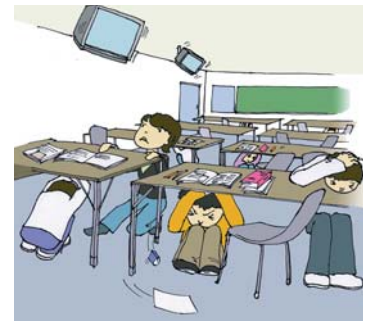
You may have to live in an Emergency Shelter. Make advance arrangements for emergency food and water.

Outdoors

Stay calm and keep away from falling glass and buildings that are in danger of collapsing. Brick walls are also dangerous. Move to an open area such as a park.

In a bus or train

Follow the instructions of the staff. If you cannot understand the instructions, ask someone close to you for help.



Preparing for earthquakes

Making your house safer

Collapsing buildings and falling furniture result in many fatalities during a large earthquake. Prevent heavy furniture from toppling over or falling down. Furniture should be securely fastened using appropriate means.

Prepare emergency items

Assemble valuables (passport, cash), food and water, a first-aid kit, a radio, clothing, etc. Pack these items together so they are ready to take with you at any time.

Know your evacuation site and escape route

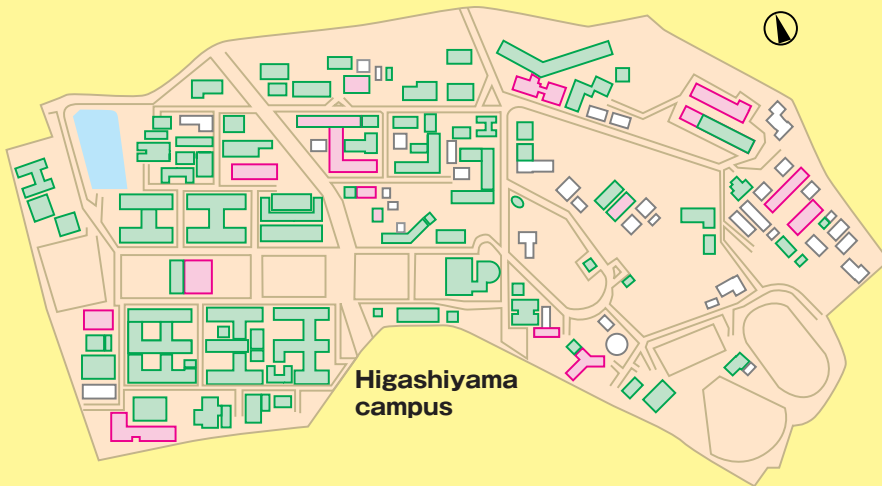
As you may need to use the Emergency Shelter in your community, it is important to know if language support is available.

Keep important contact numbers close at hand

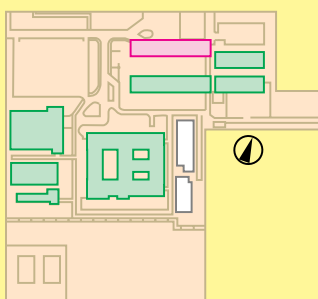
You must know how to report your safety to your school. Try to avoid using telephones for voice messages immediately after a large earthquake.

● Earthquake Damage Prevention on Campus ●

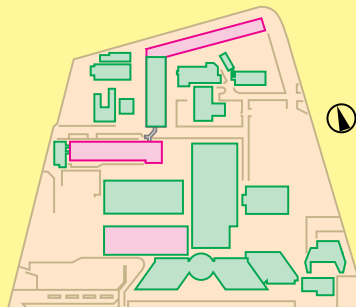
Earthquake-resistant buildings on the Nagoya University campus



Higashiyama campus



Daiko campus



Tsurumai campus

Green :

Earthquake-resistant buildings. International Ohmeikan is also earthquake-resistant.

Red :

Buildings that are not earthquake-resistant. Foreign Student House is also included in this category. Most of these buildings will be reinforced in the near future.

Red :

Buildings that will be reinforced in 2009 - 2010

White :

Low buildings that are considered to be except from the seismic repair regulations.

IMPORTANT:

When a strong earthquake occurs, or the "Earthquake Warning" (see page 4) is issued, evacuate outside to a safe place or relocate to an earthquake-resistant building.

Safety in laboratories

Secure dangerous objects

Tall, heavy, or dangerous furniture and equipment (e.g., lockers, book shelves, TV, PC, experimental facilities, facilities with casters, glass objects) should be secured to prevent movement during an earthquake.

Experiments

Safety measures should be taken for experiment tools, chemicals, and gas. It is important to prevent fires and explosions. Stop any experiments in the case of an earthquake, check that flames are extinguished, check for accident prevention, then evacuate quickly and safely.

Safe evacuation

Do not store goods near exits and passageways. Watch for areas of danger (e.g., damaged buildings and falling objects) on your way to the evacuation site.

Preparedness

Please discuss earthquake safety with your supervising professor and fellow laboratory members.



Further Information

Official shelter areas

Maps of shelter sites are available at your local ward office or on the Nagoya City website at <http://www.city.nagoya.jp/global/en/nagoya00023973.html>

Emergency kit

Valuables : passports, cash (small change), bankbook, health insurance passbook, licenses/certificates.

Emergency food : pack 3 days worth of food (canned food, etc.) and drinking water (3 liters per day).

Medical supplies : first-aid kit, medicines, etc.

Emergency equipment : portable radio, flashlight, batteries.

Clothing : long-sleeved top, rain gear, underwear, blanket, sleeping bag, spare glasses, gloves, etc.

Other necessary items for babies, elders, sick persons and those who need constant care.

The Official Earthquake Warning for the Tokai Earthquake

Observation Information (Kansoku Joho) : Wait carefully for the next information.

Advisory Information (Chu'ui Joho): Usual activities in the university should be stopped and necessary action should be taken. Students and staff should return home safely and make preparations.

A "Warning" is issued (Keikai-sengen): Trains and buses will be stopped. Most shops will be closed. Stay in an earthquake-resistant building or find an outdoor area where you will be safe during strong ground shaking. Information and warnings will be given on TV, radio, and various announcements.

Radio emergency information in foreign languages

ZIP-FM 77.8MHz and RADIO-i FM 79.5MHz

Emergency contact

Contact your school or laboratory (know the contact number of your laboratory or your supervisor). During and immediately after a disaster, phone lines should be used for emergency calls only. Do not use your telephone for voice messages in this case.

Nagoya University portal site system (mynu.jp) is also used for registration of personal situation and contact information after the disaster.

NTT emergency message dial 171

This service is available when earthquakes and other natural disasters occur. Information on using this service is provided on the Nagoya City website at <http://www.city.nagoya.jp/global/en/living/kinkyu/shizen/> Home telephones and mobile phones for voice messages may not work. Use coin-operated pay phones.

Mobile phone disaster message board

This service enables users in the disaster area to register messages via the network access functions of their mobile phones.

Message boards in English (Instructions are also available):

DoCoMo : <http://dengon.docomo.ne.jp/Etop.cgi>

au : <http://dengon.ezweb.ne.jp/E/service.do>

SoftBank : <http://dengon.softbank.ne.jp/pc-e1.jsp>

Willcom : <http://dengon.willcom-inc.com/dengon/Top.do> (link to English page)

Web pages

Nagoya City <http://www.city.nagoya.jp/global/en/living/kinkyu/shizen/>

Aichi Prefecture http://www.pref.aichi.jp/bousai/zisin_saigai/index.html (in Japanese)

Shizuoka Prefecture <http://www.pref.shizuoka.jp/kikaku/ki-20/english/earthquake/index.htm>

Mie Prefecture http://www.bousaimie.jp/mie_eng/

Contact

NU Disaster Management Office, 052-788-6038, 4th floor, Building of Grad. School of Environmental Studies.
<http://www.seis.nagoya-u.ac.jp/taisaku/> (in Japanese)

Nagoya University Portal (mynu.jp)

Various information will be available at the Nagoya University Portal site <https://mynu.jp>

